

CLAIMS

What is claimed is:

- 1           1.     A workflow management device comprising:  
2               a communications interface configured to receive a user request  
3     comprising one or more user-desired product properties to achieve a user-desired  
4     product, the interface further configured to communicate with one or more  
5     devices located external of the workflow management device;  
6               a storage device configured to store data for processing the user request;  
7     and  
8               processing circuitry configured to process the user request using the data  
9     to produce a transformed user request, the transformed user request including  
10    information for automatically organizing workflow to process the one or more  
11    user-desired product properties to achieve the user-desired product.
- 1           2.     The device of claim 1, wherein the transformed user request is  
2     received by a controller configured to control the workflow to perform the one or  
3     more user-desired product properties.
- 1           3.     The device of claim 2, wherein the transformed request comprises  
2     additional information to process the user request in accordance with  
3     specifications of the user, and the additional information comprises information  
4     to route and process the one or more user-desired product properties, and  
5     information to prioritize processing of the one or more user-desired product  
6     properties.  
7
- 8           4.     The device of claim 1, wherein the user request is received in a job  
9     definition format (JDF).
- 1           5.     The device of claim 1, wherein the interface is configured to  
2     receive the user request via the Internet.

1           6.     The device of claim 1, wherein the data comprises instructions  
2 written in Extensible Stylesheet Language.

1           7.     The device of claim 1, wherein the processing circuitry is an XSLT  
2 processor.

1           8.     The device of claim 1, wherein the processing circuitry applies XSL  
2 transformation to the user request to produce the transformed user request.

1           9.     The device of claim 1, wherein the data is stored in a stylesheet  
2 within the storage device, and the stylesheet comprises instructions written in  
3 an XSL format.

1           10.    A workflow processing device comprising:  
2           a stylesheet having defined rules for processing a user request; and  
3           processing circuitry configured to receive the user request, load the  
4 defined rules, and execute the defined rules to create a transformed request, and  
5 wherein the transformed request comprises instructions to automatically  
6 organize workflow to efficiently process the user request.

1           11.    The device of claim 10, wherein the user request comprises one or  
2 more user-desired product properties, and wherein the transformed request  
3 comprises information to process the user request.

1           12.    The device of claim 10, wherein the user request is received in a  
2 job definition format (JDF).

1           13.    The device of claim 10, wherein the defined rules comprise  
2 instructions written in Extensible Stylesheet Language.

1           14.    The device of claim 10, wherein the processing circuitry applies  
2 XSL transformation to the user request to produce the transformed request.

1        15.    A workflow management system for managing workflow in a  
2    printing system, comprising:

3        one or more devices configured to process a user request, the one or  
4    more devices communicatively coupled to a communications medium; and

5        a workflow management device comprising:

6        a communications interface configured to receive the user request, the  
7    interface further configured to communicate with the one or more devices  
8    located external of the workflow management device;

9        a storage device configured to store rules data for processing the user  
10   request, the user request comprising one or more user-desired product  
11   properties; and

12       processing circuitry configured to process the request using the rules data  
13   and produce a transformed request, the transformed request comprising  
14   information for automatically organizing workflow through the system to process  
15   the one or more user-desired product properties to produce a user-desired  
16   product.

1        16.    The system of claim 15, further comprising:

2        a controller configured to receive the transformed request and assign the  
3    one or more user-desired product properties to the one or more devices for  
4    processing using information from the transformed request.

1        17.    The system of claim 15, wherein the user request is received in a  
2    job definition format (JDF).

1        18.    The system of claim 15, wherein the rules data comprise  
2    instructions written in Extensible Stylesheet Language.

1        19.    The system of claim 15, wherein the processing circuitry applies  
2    XSL transformation to the user request to produce the transformed request.

1        20.    A workflow assignment method comprising:

2 receiving a user request, the request having one or more user-desired  
3 product properties;  
4 creating a stylesheet having defined rules for processing the user request;  
5 loading the defined rules and the user request into a processing circuitry  
6 configured to process the user request; and  
7 executing the defined rules to create a transformed user request, the  
8 transformed user request comprising additional information to automatically  
9 organize workflow to process the one or more user-desired product properties to  
10 produce a user-desired product.

1 21. The method of claim 20, further comprising:  
2 receiving the transformed user request in a controller; and  
3 controlling the workflow to process the one or more user-desired product  
4 properties using information from the transformed user request.

1 22. The method of claim 20, wherein the receiving comprises receiving  
2 the user request in a job definition format (JDF).

1 23. The method of claim 20, wherein the creating comprises creating  
2 the stylesheet in XSL format having instructions written in Extensible Stylesheet  
3 Language.

1 24. The method of claim 22, wherein the receiving further comprises  
2 receiving the user request via the Internet.

1 25. The method of claim 20, wherein the loading and the executing are  
2 performed by an XSLT processor.

1 26. The method of claim 20, wherein the creating the transformed user  
2 request comprises applying the defined rules and using XSL transformation to  
3 the user request, and the transformed user request comprise definition of  
4 workflow tasks to be performed, settings and properties for the workflow tasks,

5 and one or more user-desired product properties to produce a user-desired  
6 product.

1 27. A method of managing workflow in a printing system, comprising:  
2 receiving a user request having one or more user-desired product  
3 properties in a first processor;  
4 generating a document with the one or more user-desired product  
5 properties;  
6 defining a set of rules using which the document is processed; and  
7 processing the document using the defined set of rules to create a  
8 modified document, the modified document having instructions to organize  
9 workflow to perform the one or more user-desired product properties to produce  
10 a user-desired product.

1 28. The method of claim 27, further comprising:  
2 transmitting the modified document to a second processor configured to  
3 route the workflow to process the user request having the one or more user-  
4 desired product properties using instructions from the modified document.

1 29. The method of claim 27, wherein the instructions comprise  
2 instructions to assemble the workflow, and instructions to decide how the one  
3 or more user-desired product properties should be processed through the printing  
4 system.

1 30. A workflow assignment system comprising:  
2 means for receiving a user request, the request having one or more user-  
3 desired product properties;  
4 means for creating a stylesheet having defined rules for processing the  
5 user request;  
6 means for loading the defined rules and the user request into a processing  
7 means configured to process the user request; and  
8 means for executing the defined rules to create a transformed user  
9 request, the transformed user request comprising additional information to

10 organize workflow to perform the one or more user-desired product properties to  
11 produce a user-desired product.

1           31. An article of manufacture comprising:  
2           processor-usable media embodying programming configured to cause a  
3           processing circuitry of a workflow management device to:  
4                 receive a user request, the request having one or more user-desired  
5           product properties;  
6                 create a stylesheet having defined rules for processing the user  
7           request;  
8                 load the defined rules and the user request into a processing  
9           circuitry configured to process the user request; and  
10                execute the defined rules to create a transformed user request, the  
11           transformed user request comprising additional information to organize workflow  
12           to perform the one or more user-desired product properties to produce a user-  
13           desired product.